

CLAIMS

1. (Currently Amended) A aqueous polymer composition comprising a simple mixture of:
  - a) at least one aqueous asphalt dispersion; and
  - b) at least one aqueous dispersion of at least one polyurethane, said polyurethane being obtained from a polyol component comprising at least one hydroxylated polydiene, said aqueous polyurethane dispersion having previously and separately been prepared according to the following steps:
    - (a) formation of a prepolymer having NCO functional groups by reaction in a solvent of a polyisocyanate component, ~~of and~~ a polyol component comprising and of a diol containing at least one neutralized acid functional group, ~~the NCO functional groups being in excess relative to the OH functional groups,~~
    - (b) dispersion of the prepolymer in water,
    - (c) addition of a diamine-type chain extender, and
    - (d) evaporation of the solvent in order to obtain an aqueous polyurethane dispersion containing urea functional groups.
2. (Currently Amended) The composition as claimed in claim 1, characterized in that ~~at least 50% and preferably at least 80% by weight of~~ said polyol component ~~consists of~~ comprises at least 50% of at least one hydroxytelechelic conjugated-diene oligomer.
3. (Original) The composition as claimed in claim 2, characterized in that said oligomer is selected from oligomers based on: butadiene, isoprene, chloroprene, 1,3-pentadiene or cyclopentadiene, or on mixtures thereof.
4. (Currently Amended) The composition as claimed claims 2, characterized in that said oligomer has a number-average molecular weight  $M_n$  of 500 to 15 000 ~~and preferably 1000 to 3000.~~
5. (Currently Amended) The composition as claimed in claim 2, characterized in that said oligomer has a hydroxyl number expressed in meq/g of 0.5 to 5 ~~and preferably of 0.7 to 1.8.~~
6. (Currently Amended) The composition as claimed in claim 1, characterized in that said ~~polyol component also comprises a diol carrying~~ includes at least one

neutralized acid functional group.

7. (Original) The composition as claimed in claim 6, characterized in that said diol is triethylamine-neutralized dimethylolpropionic acid.

8. (Currently Amended) The composition as claimed in claim 1, characterized in that said ~~polyurethane is obtained from a~~ polyisocyanate component ~~comprising~~ comprises at least one aliphatic, aromatic or cycloaliphatic polyisocyanate having a functionality of at least two.

9. (Currently Amended) The composition as claimed in claim 1, characterized in that, ~~to obtain said polyurethane,~~ the proportions of the polyisocyanate component and of the polyol component are such that the overall NCO/OH ratio is between 1.5 and 2.5.

10. (Currently Amended) The composition as claimed in ~~one of claims 1 to 9,~~ characterized in that said aqueous polyurethane dispersion is obtained with a chain extender ~~chosen~~ selected from diamines.

11. (Currently Amended) The composition as claimed in claim 1, characterized in that said polyurethane represents from 2 to 50% ~~and preferably from 5 to 25%~~ by weight relative to the total asphalt + polyurethane weight, the weight being expressed as dry matter.

12. (Cancelled)

13. (Currently Amended) A method of ~~preparation of a composition as defined in claim 1, characterized in that said composition is prepared by a simple~~ comprising blending of:

i) at least one aqueous asphalt dispersion and  
ii) at least one aqueous dispersion of at least one polyurethane ~~as defined in claim 1~~ prepared according to the following steps:

(a) formation of a prepolymer having NCO functional groups by reaction in a solvent of a polyisocyanate component, and a polyol component comprising and of a diol containing at least one neutralized acid functional group,

(b) dispersion of the prepolymer in water,

(c) addition of a diamine-type chain extender, and

(d) evaporation of the solvent in order to obtain an aqueous polyurethane

dispersion containing urea functional groups.

14. (Currently Amended) The method of preparation as claimed in claim 13, characterized in that the weight proportion of the polyurethane dispersion represents from 2 to 75% of the total of ~~bitumen asphalt~~ and polyurethane dispersions, ~~in the case of bitumen asphalt~~ and polyurethane dispersions having independent solids contents varying within a range from 20 to 60% ~~and preferably from 30 to 50%~~ by weight of each dispersion.

15. Cancelled.

16. Cancelled.

17. (Currently Amended) The composition as claimed in claim 16, characterized in that said coating is a protective, sealing or waterproof, soundproofing or damping coat or coating for application for roads, roofing, in buildings or in industry.

18. (Currently Amended) A method of ~~use of a composition as defined in claim 1 or obtained by the method defined in claim 13 in the~~ production of surface coats, waterproof courses under asphalt road mixes, roofing membranes, asphalt road mixes, slurry seals or cold cast mixes, agglomeration binders, protective coverings for pipes, carpet underlay impregnation and tie layers, soundproofing and damping or insulating coverings, characterized in that it comprises the following steps:

a) blending of at least one aqueous asphalt dispersion with at least one aqueous dispersion of at least one polyurethane prepared by

(i) formation of a prepolymer having NCO functional groups by reaction in a solvent of a polyisocyanate component, and a polyol component comprising and of a diol containing at least one neutralized acid functional group.

(ii) dispersion of the prepolymer in water,

(iii) addition of a diamine-type chain extender, and

(iv) evaporation of the solvent in order to obtain an aqueous polyurethane dispersion containing urea functional groups as defined in claim;

b) direct application of the blend obtained in step a) to the application object or substrate;

c) drying/film-forming by simple water evaporation;  
it being ~~possible optional~~ for steps a), b) and c) to be carried out on the actual site  
of the application and under the ambient conditions of the application site.

19. (Currently Amended) Coatings, surface coats, waterproof courses under  
asphalt road mixes, roofing membranes, asphalt road mixes, slurry seals or cold  
cast mixes, agglomeration binders, protective coverings for pipes, carpet underlay  
impregnation and tie layers, soundproofing and damping or insulating coverings  
obtained by the method as defined in claim 18, ~~or from a modified asphalt~~  
~~dispersion as defined in claim 1, or obtained by the method as defined in claim 13.~~

20. (New) The composition of claim 2 characterized in that at least 80% by  
weight of said polyol component consists of at least one hydroxytelechelic  
conjugated-diene oligomer.

21. (New) The composition of claim 4 wherein said  $M_n$  is 1000 to 3000.

22. (New) The composition of claim 5 wherein said hydroxyl number  
expressed in meq/g is 0.7 to 1.8.